

## **RECORD OF INTERVIEWS**

Thomas J. Latson, Jr. Air Safety Investigator Central Region

Date: January 29, 2010 NTSB Accident Number: CEN10FA107

On January 29, 2010, I went to the U S Aviation Group, LLC (U S Aviation) facilities at the Denton Municipal Airport (DTO), Denton, Texas. I was accompanied by Federal Aviation Administration (FAA) inspectors Kevin J. Taylor and R. J. Loomis, Jr. We separately and privately interviewed several maintenance personnel that had previously performed or certified maintenance on N145AG.

Mr. Donald "Butch" D. Johnson, Jr. said he was the U S Aviation shop lead mechanic. He said he holds an FAA Airframe and Powerplant (A&P) mechanic certificate with Inspection Authority (IA). He said he also holds a private pilot certificate with a rating in single engine land airplanes

Mr. Johnson was asked if he had actually flown N145AG for the maintenance record entry made on May 12, 2008, stating that the aircraft had been test flown. He said that he had not actually flown the airplane, but that he had used the information from in the aircraft 8130-15 and he added that to the logbook. He added that the FAA Designated Airworthiness Representative (DAR) did physically inspect N145AG before he issued the airworthiness certificate.

Mr. Friedrich H. Moore said he holds an FAA A&P mechanic certificate with IA authority. He said he got his private pilot certificate in 1985, has been an A&P mechanic for almost 20 years, and an IA for about the past 7 years. He is an avionics lead at U S Aviation and has been there for about four years.

Mr. Moore was asked about the carburetor heat modification to N145AG that he had signed off on September 22, 2008 on U S Aviation work order 1758. He said that he had completed the modification by himself and that he had used factory drawings to install all the components. Mr. Moore was asked if that was an approved modification. Mr. Moore stated that he believed it was by the use of the factory parts and drawings.

Mr. William "Bill" B. Svadlenka said he holds an FAA A&P mechanic certificate. In addition, he holds a private pilot certificate with a rating in single engine land airplanes. He said he spent four years in the U S Navy where he was an aviation technician performing high level aircraft maintenance on an aircraft carrier. He has been an avionics bench technician for about seven years and started with U S Aviation about two to three years ago.

U S Aviation also holds an FAA repair station certificate (CRS) and Mr. Svadlenka is both an avionic lead and a CRS inspector. He said the U S Aviation repair station installs a lot of autopilots in Tecnams and he does the advanced installations.

Mr. Svadlenka was asked about the avionics installation on N145AG. He said he had completed all of the initial avionics installation to include the auto pilot, radios and EFIS in reference to U.S. Aviation work order 1439. He thought that maintenance was signed off and the airplane was returned to service by either Steve and or Roy under the repair station certificate on October 17, 2008.

When asked about some repairs that he had completed on N145AG in October, 2008. Mr. Svadlenka said that it was normal as best as he could remember and that if leaks were found they would have been repaired by replacing the bad lines with "poly flow" tubing as it was better and did not leak as the original tubing did. Mr. Svadlenka was asked if there was approved data for the replacement of the tubing. He said he did not think so, but the poly flow tubing was better and easier to work with and that was the shop practice.

Mr. Svadlenka was then asked about his activities referred to in U S Aviation work order number 2186 on March 31, 2009 and work order number 2199 on February 26, 2009. Mr. Svadlenka said that he had completed the work on the intercom and returned it to service, as it was a box exchange with minor wire changes to allow for the audio interface with the flight guidance system. He was then asked what approved data was used for this alteration. Mr. Svadlenka said that there was not a Tecnam letter of authorization or approved data.

Regarding approved data for the ELT installation, Mr. Svadlenka said that he installed it in accordance with the ELT installation manual, since there was no information in the Tecnam maintenance manual. He had installed the ELT on the aft right side behind the upholstery in the tail of the aircraft with access though the cockpit baggage area and placed it as far forward as possible. He installed the ELT remote switch in the instrument panel. He installed the ELT whip antenna at the top of the fuselage just forward of the vertical tail using a locally fabricated doubler made out of .040 aluminum riveted to the fuselage. He could not remember if he had used blind rivets or hard rivets. He routed the coax cable to the antenna though the fuselage to the ELT and secured with either adel clamps and/or zip ties. For that ELT antenna installation, Mr. Svadlenka said his only access to the inside of the fuselage was though the inspection panel on the belly just aft of the stabilator push pull rod mid span bulkhead. He said that he would have completed all of the doubler and antenna wire routing though that inspection panel.

Mr. Svadlenka said that he had completed most if not all the work by himself although he thinks he may have had some help with the doubler installation. Describing his work activities in the shop for that task installing the ELT antenna he said he used riveting tools, an electric drill, long number 40 drill bits, an a hand held battery operated LED work light.

He said does not remember using that work light after the ELT installation. He said he later knew that he had lost the work light. He looked for it and had asked around the shop, but could not find it. Mr. Svadlenka said that he had not informed his boss about the missing light.

Mr. Svadlenka was asked if there was a U S Aviation shop rule that required the mechanics to audit their toolboxes for missing tools after performing maintenance. He said there was not such a policy, but all of the mechanics have some very expensive tools, and it was not uncommon for others to occasionally borrow tools from their coworkers.

He was then shown a photograph of the red work light recovered from the tail of N145AG with the initials "WBS" marked on the side of the work light. Mr. Svadlenka immediately identified it as his personal property. Mr. Svadlenka said he was not sure whether or not he was the person that had left the work light inside the tail of N145AG, but he knew it was very possible. He again confirmed the red work light was his and that it was the same work light that he had previously used when installing the ELT in N145AG.

Mr. Nathan W. Probst said he holds an FAA A&P mechanic certificate and has been a mechanic at U S Aviation for about three years.

Mr. Probst was asked about the N145AG maintenance logbook entry for an inspection on June 14, 2009. Mr. Probst said that he had been the lead mechanic on that inspection with a team of three other mechanics, but he did not recall who had worked with him at that time. Mr. Probst went on to say that, a "conformity" inspection of the aircraft was completed and that he had completed all the airframe inspection items. He continued that he had physically opened or closed all the inspection panels and nobody else assisted him. Mr. Probst went on and said that they had used a U S Aviation company checklist for that inspection. He could not locate the actual checklist which he used on June 14, 2009 and he presented a sample blank copy of the U S Aviation company checklist.

Mr. Probst said that he had inspected and lubricated the aft fuselage area referencing the maintenance manual. Mr. Probst then referred to the Tecnam Line Maintenance Manual, figure 3-7, and described his procedures for the lubrication at "point 11" on that page. He said he had removed the inspection access panel located on the belly just below "point 11". While lubricating the grommet at that point and said he had used his flashlight and mirror to inspect the entire length of the stabilator push pull tube. He was asked about the condition of the push rod condition and if there were any foreign objects found. Mr. Probst said that there was no damage and he found no objects in that area.

Mr. Probst said the tools he used during this activity were a rechargeable Streamlight rechargeable xenon flashlight, a  $2\frac{1}{2}$  inch inspection mirror, a Matco ratchet screwdriver, and a 14 inch hemostat.

When asked, Mr. Probst said there was not a US Aviation shop rule that required the mechanics to audit their toolboxes after performing maintenance.

Mr. Probst was asked about his return to service and record entry in the N145AG logbook on June 14, 2009. Mr. Probst said that that he had created and signed the logbook entry. He was asked what a "conformity inspection" was and how it deferred from a "condition" inspection. Mr. Probst said a Light Sport Airplane (LSA) doesn't get a condition inspection, instead it gets a conformity inspection, which is "pretty much the same as a 100 hour inspection". He went on to say did not know what a "condition" inspection was. At that time, a copy of the Tecnam line maintenance manual was brought into the room and the condition inspection was reviewed and compared with the U S Aviation checklist. Mr. Probst agreed that the U S Aviation checklist was not as detailed as the Tecnam maintenance manual checklist and not all items on the Tecnam checklist appeared on the U S Aviation checklist. Comparing the two checklists, Mr. Probst confirmed that the U S Aviation checklist made no mention of the mid-span grommet for the stabilator push pull tube.